

information, these two streams are transmitted to a header compression module which generates packets containing reconstructed original data and packets containing additional information,

In the "down" direction, the packets containing the useful data and the packets containing the additional information are transmitted to the header compression module which generates useful data packets with compressed headers and transmits them to the channel coder for sending over the channel.

Oliveri appears to disclose a method of signal coding wherein the signal is source coded to obtain a coded data stream, and source significance information (SSI) is included into the coded data stream, wherein the source significance information (SSI) indicates desired protection rates of respective parts of the coded data stream.

Oliveri proposes a method of transmitting SSI within a coded data stream between source and channel coder in the presence of intermediate network layers. In Fig. 7, Oliveri discloses using an intermediate coder implemented at intermediate layers to perform a coding operation wherein the first SSI header is shifted and the offset updated (see paragraph 39 lines 8-10).

Applicants respectfully submit that the claimed method is distinguished from Oliveri in that Oliveri implies a modification of intermediate layers and does include or even suggest the use of a header compression/decompression protocol to efficiently exchange SSI and other signaling type of information between layers in a transparent way, as claimed by Applicants.

Furthermore, Oliveri's second solution (see Fig 9) does not implement SSI management at the intermediate layers but instead modifies the coded data stream by including an identifier associated to the first SSI header (see Oliveri, paragraph 44 lines 1-9). Indeed, Applicants indicate the same technical problem indicated in Oliveri and emphasize on the limitations of the type of solution proposed by Oliveri (see specification, page 6, lines 5-8, of the present application, which states, "These solutions have the major drawback of requiring a mechanism capable of constructing or

of modifying the content of the IP packets that are valid at the physical level and at the network access level.").

Applicants' recited method is distinguished from Oliveri in that on page 8, lines 4-8, describes the solution as allowing exchange of information between the source decoder and the channel decoder in the presence of intermediate network layers without modification of these layers.

A rejection based on 35 U.S.C. §102 requires every element of the claim to be included in the reference, either directly or inherently. Accordingly, because Oliveri does not disclose, teach or suggest Applicants' recited method for exchanging data between two layers of a network stack in a data transmission system comprising a header compression and/or decompression mechanism located above a network access level, independent claims 9 and 22 are patentable over Oliveri.

Claims 12-16, 21 and 24-25 depend variously from independent claims 9 and 22 and are likewise patentable over Oliveri at least for their dependence on an allowable base claim, as well as for additional features they recite. Withdrawal of the rejection over Oliveri is respectfully requested.

Claim Rejections under 35 U.S.C. §103(a)

Claims 10, 11 and 23 stand rejected under 35 USC 103(a) as being unpatentable over Oliveri in view of Tourunen et al. (U.S. 2002/0001298 A1).

Tourunen relates to a method for allocating data transmission resources in a packet-switched data transmission system which comprises an operational entity for defining resources for a radio bearer and a header compression module. Tourunen proposes to select the compression method before setting up the radio bearer resources, citing the advantage of optimizing the resources allocation for a radio bearer considering the type of header compression mechanism used, in particular, unidirectional or bidirectional mode.

The Examiner admits that Olivieri fails to disclose shaping the quantized additional information as a function of the characteristics of a protocol stack, and relies on Tourunen to remedy the deficiencies of Oliveri. Applicants respectfully disagree and submit that Tourunen addresses a complete different technical problem than the present application. Indeed Tourunen attempts to efficiently allocate the data transmission resources by selecting the compression method in order to optimize the resources allocated.

Nowhere does Tourunen disclose or suggest a method of exchanging side information between source and channel decoders without modifying intermediate layers by using header compression/decompression properties in order to shape the quantized additional information transmitted as a function of the characteristics of a protocol stack.

Applicants respectfully submit that it would not have been obvious for one ordinary skill in the art to combine these two documents to create the Applicants' allegedly obvious claim elements, and even if combined, the alleged combination, taken as a whole, does not suggest the Applicants' recited solution in claims 10, 11, and 23. Accordingly, withdrawal of this rejection is respectfully requested.

Conclusion

All objections and rejections having been addressed, it is respectfully submitted that the present application should be in condition for allowance and a Notice to that effect is earnestly solicited.

Early issuance of a Notice of Allowance is courteously solicited.

The Examiner is invited to telephone the undersigned, Applicants' attorney of record, to facilitate advancement of the present application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 07-1337 and please credit any excess fees to such deposit account.

Respectfully submitted,

LOWE HAUPTMAN HAM & BERNER, LLP

A handwritten signature in black ink that reads "Kenneth M. Berner". The signature is written in a cursive style with a large, stylized 'K' and 'B'.

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